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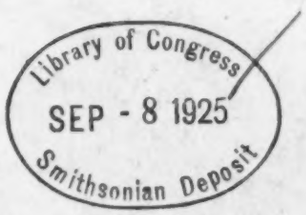

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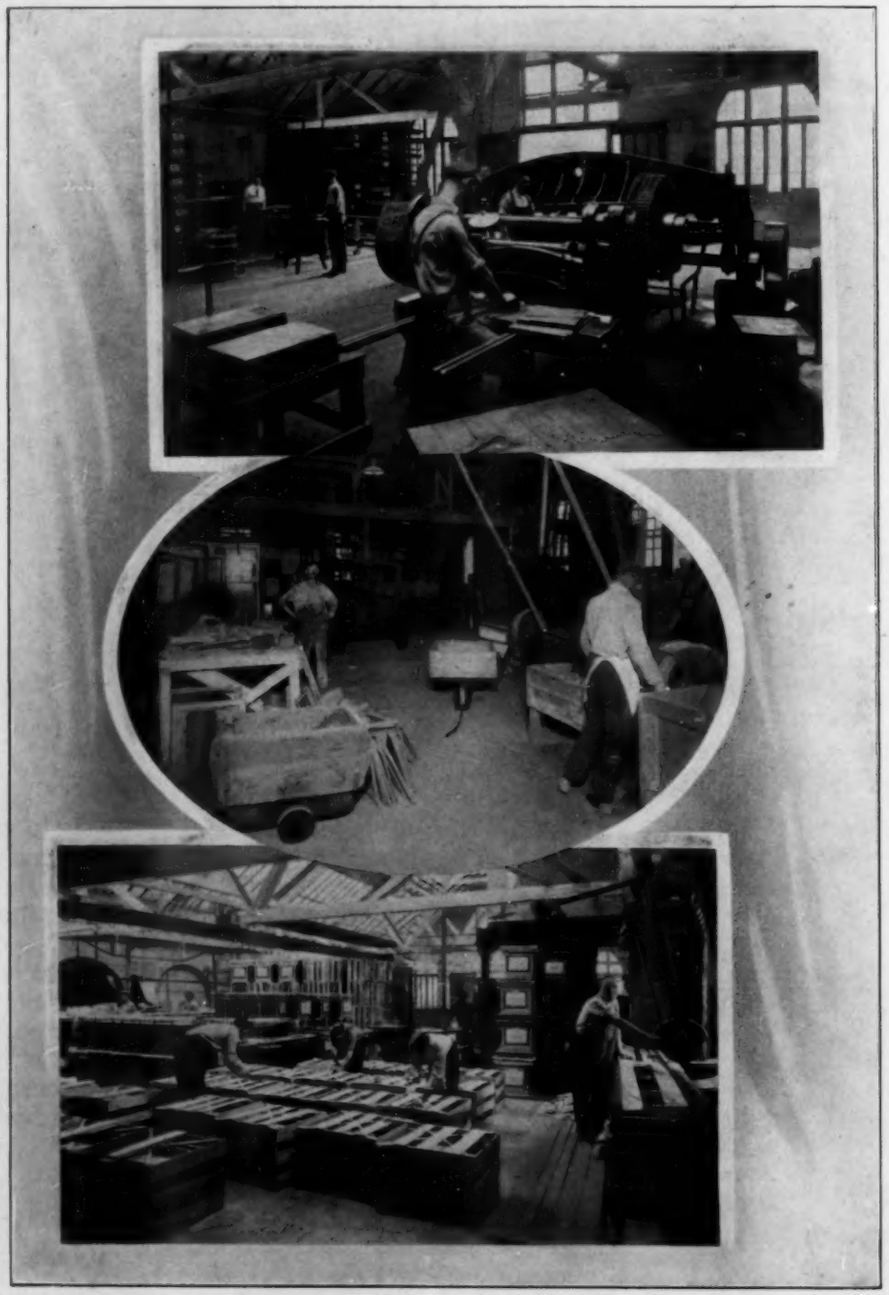
Index to Contents, Page 4

Advertising Index, Page 37



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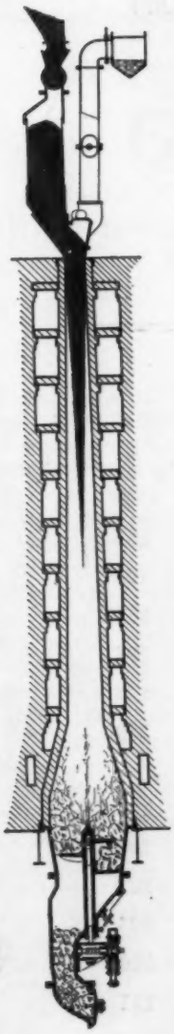

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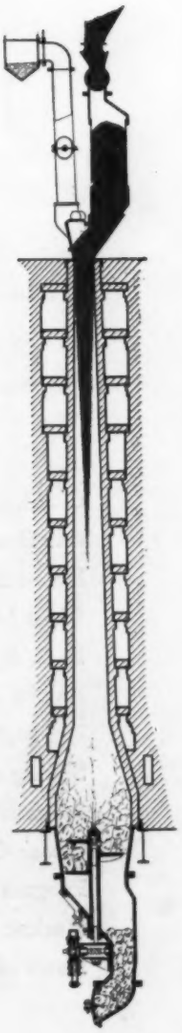

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Contents of This Issue

Gas in a Textile Mill—By G. E. DeLoid **191**
Gas from Fuel Oil—By J. A. Harritt **193**
House Heating Experience in New England—By A. L. Flanders **195**
Ideas for the Man Who Sells—By William H. Matlack **197**
P. G. & E. Publicity—By William H. Matlack **198**
As the Journal Views It **199**
State Committee Work
Selling the Company to Its Employees—By P. W. Herring **200**
Industrial Gas Lesson No. 86 ..... **201**
Closer Co-operation Between East and West **202**
Progress in Gas Technology **203**
Market Report **210**
News of the Gas Industry **211**

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AMERICAN
GAS JOURNAL

Vol. 123. No. 10 NEW YORK, SEPTEMBER 5, 1925 Whole No. 3536

Gas in a Textile Mill

Using three million cubic feet of gas a month in a finishing plant

G. E. DeLoid

Taunton Gas Light Company

THE Mount Hope Finishing Company, North Dighton, Mass., is perhaps the largest textile finishing plant in the United States. It is certainly one of the busiest plants in the country. Instead of any curtailment in output there is a tendency toward a constant expansion of the size of the plant to take care of the business secured.

Not only is the plant apparently unaffected by depressions in the textile industry, but is also remarkably free from labor troubles. Surrounding the factory there is a model village. Houses are built and financed by the company and a large percentage of the employees are paying for the homes in which they live. North Dighton impresses one as being much more like a suburban community inhabited by well-paid people working in a nearby city than it does a mill village. The company has, in fact, won a national reputation for the work it has done in building up a model factory town of cottage houses surrounded by well-kept lawns and facing on perfectly paved streets.

Probably the real secret of the success of the company lies in the fact that it gives so much attention to every detail of its business, and studies each problem with the care it has this problem of housing its employees. As a matter of fact, after seeing the extremely attractive residences and one passes on his way to the plant, he would certainly be disappointed if he did not find the plant itself a model of its kind.

A Model Plant

However, there is no such disappointment awaiting him. Soon after he steps inside the door and passes on into the manufacturing portion of the building he spies an electric truck speeding along with a train of trailers behind it. The acres of working and storage floor space of the two-story building have an interdepartmental transportation system of electric trucks and trailers. Ramps take the place of elevators so the trains are easily driven home floor to floor or down into the basement. There are indeed only a few elevators in the whole plant, and these are in the older sections of the plant.

Every working floor, at least in the more recent additions to the plant, are models of perfect natural lighting. Few photographic studios could boast of better day lighting. With no overhead shafting and with belts reduced to the minimum, there is little to impede the distribution of the light, and the workers are placed in a position to do the best and the most work.

Each and every department measures up to high standards in regard to those features which are of importance in keeping up the quality of the work done and securing the greatest possible production. Gas plays an important part in meeting these standards.

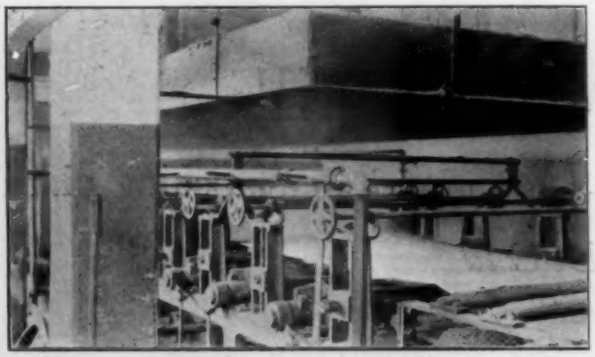
Part Played by Gas

Passing through the gate into the plant, going down a ramp and turning and going to the end of a long passageway, one comes to an installation of two huge gas meters, each standing on the floor, and each nearly as tall as a full-grown man. Either of these two 250-light meters would take care of the gas needed in the departments they supply, but two have been installed to insure against any failure of supply. Each meter is connected to a governor which reduces the high pressure of the gas pumped through the mains from the Taunton Gas Light Co. plant to a pressure the meters will stand. The system of valves makes it but a matter of a moment to change from one set of governor and meter to the other. One set can be completely cut out for repairs or tests without in any way affecting the supply of gas to the gas burners on the machines in the plant.

Safety Precautions

A still further precaution is the installation of the Fulton Duplex Sensitive Vacuum Regulators which prevents the collapse of the meters in case for any reason the supply of gas to the meters is shut off without stopping the compressors.

For example, if by chance someone should close the main gas valve on the supply line to the meters and fail to stop the compressor, the compressor would work on the vacuum regulator instead of the



Gas Heated Singeing Machine

meter and cause no trouble. On the other hand, if no relief valves were used and this happened, the meters would collapse and be out of commission, thus putting this part of the plant out of business until repairs could be made.

There are in the plant two of these 250-light meter duplicate sets, each having its duplicate meters, its duplicate governors, its vacuum release and its direct connection to the gas company's mains. In addition to these two sets of meters there are six number five meters, each having a capacity of approximately 100 lights, measured in the light system. This means that, eliminating all duplication and figuring only the meter capacity that is in constant use, it requires a meter capacity of 1,100 lights to supply the gas consumed in the entire plant. In other words, with two of the 250-light meters still in reserve, the metering capacity is great enough to measure more than 11,000 cubic feet of gas per hour. This gives some idea of the size of this plant which is now using some three million cubic feet of gas per month with every prospect of increasing this consumption.

Why Gas Is Used

From what has already been said about the company, it is obvious that it is using gas simply because it has found it more satisfactory for the purposes for which it is used than anything else has proved. Gas has proved a clean fuel, one easily applied, one that is extremely flexible, and one easily controlled and regulated.

On the singeing machines in particular close control is essential. An intense heat is needed to do the work satisfactorily. Different weights and kinds of cloth, however, require a different intensity of flame. With gas it is a comparatively easy matter for the experienced operator to adjust the heat to just the right point to secure exactly the desired results and at the same time to get the utmost production from the machine. The Mt. Hope Finishing Company, therefore, is using gas on its five singeing machines.

Calenders also require an intense heat under perfect control. Gas meets all requirements. A long bar burner extending through the heated roller serves to maintain the desired temperature and permits of quick and accurate adjustment to the heat requirements of different weights and kinds of cloth. Not only is the company using gas on the twelve calenders that have been in operation for years but also on the eighteen Shriner calenders that have been more recently installed.

Gas in Tentering Machines

Gas is also used on six tentering machines. These three types of machines the singers, the calenders and the tentering machines are the largest users of gas in the plant, all other uses being minor ones.

The Needham pressure system is used to distribute the bulk of the gas to the burners, though the Kempt system with the gas and the air mixed and compressed is used to supply three of the singers. The Needham system compresses the gas to about ten pounds pressure and entrains the air at the burner.

The plant finishes cotton cloth, taking it in in the form of gray goods, and has facilities for mercerizing, dyeing and performing virtually all finishing processes except printing. An ordinary week's output will exceed three million yards.

The company maintains a very complete mill chemical laboratory and also a proficient engineering staff. If there is anything new in fuel or in processes, these technical men are pretty certain to learn of it.

Guess work in the plant is eliminated. Everything

Meter Set in Finishing Plant

is done in accordance with exact technical specifications. The company is not shackled by tradition. The best methods, the best processes, the best designs in machinery, the best in ability, is what is sought.

Gas continues to be used as a fuel because it meets better than anything else the rigid specifications laid down for the purpose for which it is used. If the concern considered there was something better, it most certainly would use it. If there was something better, it surely would learn of it.

Gas From Fuel Oil*

How it is manufactured

J. A. Harritt

ALL oil gas generators of the San Diego Consolidated Gas Company built prior to 1921 are of the single shell, straight shot design. The three still in existence, of which two are now in operation, were designed and built by our local operating department. Each consists of a steel cylinder or shell 20 feet in diameter by 30 feet high, standing vertically; a cylindrical washbox 8 feet in diameter by 15 feet long, placed horizontally, and a primary scrubber 14 feet in diameter by 60 feet high.

The generator shell is lined with a solid fire brick wall 18 inches thick with two inches of insulation between the brick wall and steel shell. Inside the brick walls we have left a room 16 feet 8 inches in diameter by 28 feet high, with a dome top.

The Combustion Chamber

In the bottom of this room is placed a combustion chamber, built up of fire brick. Above the combustion chamber, which is 8 feet high, the room is filled with fire brick "checker work". This checker work is laid up in such a manner that one-half the area is brick and the other half consists of open flues 3 inches square.

In the combustion chamber are four oil burners and two 18-inch diameter air lines, to heat the mass of checker brick. The bed of checker brick is 12½ feet deep, and above it are placed 14 oil injectors.

On top of the shell and opening into the checkered space, which is now the gas making chamber, is located the stack valve. This is a large circular cast iron door weighing 1,500 pounds, which is opened and closed by steam at the will of the operator on the floor, 50 feet away.

Oil burners and injectors have steam flowing through them under pressure at all times. All generators are equipped with high pressure oil pumps, meters, etc., and water pumps.

Making Gas

Considering a generator kept heated to about 1,700° F., as it is while in operation, the normal method of operation is as follows: First, the aforementioned air lines or blast valves are opened allowing 16,000 cu. ft. of air per minutes to blow through the hot checkers and out through the stack valve. Then the oil burners in the combustion chamber are turned on, heating the checkers until they reach a temperature of about 2,000°. (The air is needed to burn the oil rapidly.) This causes the flare, seen at regular intervals, coming from the gas plant.

Air Blast After Temperature Is Right

In ten minutes about 35 gallons of oil have been burned and the temperature is right. Then the oil is shut off, then the air blast. The stack valve is then closed, and oil is sprayed, through the injectors, onto the top of the hot checkers. The oil being a heavy hydro-carbon compound is broken up. The hydrogen and carbon are disassociated in a direct ratio with the temperature of the checker brick.

Thus, it can be seen readily that temperatures must be absolutely controlled, as the valuable constituents of the gas are combinations of hydrogen and carbon. If the temperature is too high, these combinations are further broken up and the carbon is lost in the form of "lampblack", while the hydrogen dilutes the gas, resulting in lean gas of a low B.t.u. If the temperature is too low we have a contrary result. In either case there is a distinct loss in the amount of oil needed to make a given quantity and quality of gas.

Effect of Heat on Oil

When the oil is admitted to the hot brick, it expands in the gasifying process to over 1,000 times its original volume, the 250 gallons of oil used on each "make" 'expanding from about 35 cu. ft. of oil to about 35,000 cu. ft. of gas. As the gas making chamber, in which this expansion is taking place, is sealed tight, a tremendous pressure would soon be built up, but through the combustion chamber at the bottom of the checker work we have a 30-inch diameter pipe which leads to the washbox.

The Operating Gallery of the Two Jones Sets. The Manual Control Board Is Seen at Left, the New Automatic Control Board Is Seen in the Rear, Right

Cleansing the Gas

This washbox has a flow of 250 gallons of water per minute going through it constantly. The pipe from the generator dips into this water to a depth of ten inches.

*From "Glow".

The pressure in the generator forces the gas to pass through this water, where it is suddenly chilled from about 2,000° to about 175°, causing the free carbon or lampblack to drop from the gas into the washbox whence it is carried by the water to the filtering plant.

After being washed, the gas enters the primary scrubber. The scrubbers are also checkered, but with ½ by 6 inch boards spaced one inch apart on edge for the full 60 feet in height.

Course of the Gas

The gas entering the bottom of scrubber is forced to rise to the outlet at the top through these boards or "trays", while 250 gallons of water per minute is raining down through them to the water outlet at the bottom. In this way the gas is cooled to about 100° and most of the tar is removed or "scrubbed" out. The gas passes through two or more of these scrubbers, and then enters the relief holder, still forced forward by the expansion in the hot generator.

By the time the 250 gallons of oil and about 1,500 pounds of steam used on the "make" have entered the checker work, the latter has been cooled down to about 1,600°, which is too cold for further work, and ten minutes' time has elapsed. It is now necessary to reverse the operation and reheat the checkers to 2,000°, which brings us back to our starting point. This cycle of 10 minutes heating and 10 minutes making is repeated hour after hour, day after day, for 24 hours daily.

After about 18 months' service, the carbon deposited from the oil on the checker brick forces us to remove the old brick and replace with new. This is about the only thing that ever forces or permits the cooling of a generator after it starts operation. About 22,000 brick are required for the checker bed in this type of generator.

Two Shell Sets

Since 1921 we have adopted the two shell type of generator familiarly known as the Jones set. This set consists of two shells joined at the bottom, the combustion chamber being located in the top of one and the stack valve on top of the other.

Each shell is a checkered gas making chamber and contains a steam superheater. The two shells are heated by the one fire, with but little more oil than one single shell would require. The steam superheaters allow a large volume of steam to be highly superheated, and this hot steam combines with the hot carbon on the checkers and forms water gas.

Advantages

Thus the saving in heat, oil and the ability to make some water gas on the same generator, result in a distinct saving in the amount of oil required for a given quantity and quality of gas. Aside from these features, the principle of manufacture is the same as in the straight shots.

Seeing the large blowers furnishing air to the gen-

(Continued on page 206)

At Night the Flare of the "Blast" During Oil Gas Manufacture, May Be Seen for Miles

House Heating Experience in New England *

With particular reference to competition with oil

Arthur L. Flanders
Lowell Gas Light Co., Lowell, Mass.

A DESCRIPTION of the property and previous heating equipment is as follows: The house as shown in the photograph is two and one-half stories high and of frame construction. It contains eleven heated rooms and bath and faces the south. The constants of the building are: cubical contents, 21,900 cu. ft.; exposed wall area, 2,323 sq. ft.; glass area, 589 sq. ft., of which 227 sq. ft. is in the sun room.

By using the familiar 2-20-200 rule of allowing one sq. ft. of steam radiation for each two sq. ft. of glass area, each 20 sq. ft. of exposed wall, and each 200 cu. ft. of cubical contents, we find the theoretical required radiation to be 511 sq. ft. The actual installed cast iron radiation is 491 sq. ft.

The original heating boiler was an Ideal—Type 4-25-S, Series 25-IB steam boiler rated at 550 sq. ft. It was made by the American Radiator Co. Fuel used was anthracite coal.

An Ideal 2-G-4 gas fired steam boiler, manufactured by the American Radiator Co. and having a rating of 975 sq. ft., was installed to replace the original heating unit, which was disposed of. The thermostatic control used was a Honeywell 18 AC Electric motor type.

Original Heating Unsatisfactory

The original heating unit did not have sufficient capacity to satisfactorily heat the house in very cold weather, even with the sun room being closed and not heated. No attempt was made to heat the sun room except in relatively mild weather. Certain of the mains were not pitched properly and this added to the unsatisfactory service rendered. When possible a temperature of approximately 70 deg. was maintained during the waking hours; the temperature being allowed to drop as low as the outside conditions caused during the sleeping hours.

With the boiler of ample rating installed and the mains properly pitched, a satisfactory and quick acting system resulted. The entire house, including the sun room, was kept at 70 deg. for 16 hours of the day and dropped to 65 deg. the other 8 hours, regardless of outside weather conditoins.

Coal operating costs:

Coal consumed—12 tons at $17	$204.00
Labor—ash removal and attendance	150.00
Total cost	$354.00
Gas consumption:	
Total for season	594,100
Cost at $1 per M	$594.10

*Prize winning paper in the House Heating Contest of the New England Gas Sales Association.

Gas Consumption Figures

The seasonal gas consumption was divided as given in the table that is shown.

Weekly Gas Consumption

Date	Consumption	Degree Days	Credit
Oct. 15-Oct. 21	19,800	143.0	.277
Oct. 22-Oct. 28	9,500	115.6	.165
Oct. 29-Nov. 4	16,600	168.5	.197
Nov. 5-Nov. 11	14,800	164.0	.181
Nov. 12-Nov. 18	20,600	242.9	.170
Nov. 19-Nov. 25	18,300	205.4	.178
Nov. 26-Dec. 2	22,500	261.6	.172
Dec. 3-Dec. 9	21,300	232.0	.184
Dec. 10-Dec. 16	28,100	277.0	.203
Dec. 17-Dec. 23	31,300	328.5	.191
Dec. 24-Dec. 30	30,500	319.2	.191
Dec. 31-Jan. 6	29,400	301.7	.195
Jan. 7-Jan. 13	27,300	291.9	.187
Jan. 14-Jan. 20	33,200	354.2	.187
Jan. 21-Jan. 27	34,100	330.4	.206
Jan. 28-Feb. 3	30,100	314.4	.191
Feb. 4-Feb. 10	21,000	222.2	.189
Feb. 11-Feb. 17	19,700	217.2	.181
Feb. 18-Feb. 24	18,000	212.9	.169
Feb. 25-Mar. 3	29,400	299.5	.196
Mar. 4-Mar. 10	17,800	202.7	.175
Mar. 11-Mar. 17	18,500	207.3	.178
Mar. 18-Mar. 24	16,700	199.5	.167
Mar. 25-Mar. 31	13,400	164.7	.163
Apr. 1-Apr. 7	13,700	166.7	.165
Apr. 8-Apr. 14	12,900	158.0	.163
Apr. 15-Apr. 21	14,600	184.8	.158
Apr. 22-Apr. 28	11,000	140.2	.157
Season 1924-25	594,100	6,426.0	.185

Based on 500 sq. ft. of steam radiation and an average inside temperature of 68 deg. Fahr.

Cr. is a constant and represents the feet of gas per day per pilot of radiation per degree temperature, difference between inside and outside temperature.

Cr. = .190 for steam and .119 for hot water; assuming 540 B.t.u. gas and 80 per cent efficiency of system.

Advantages Gained with Gas as a Fuel

The particular installation chosen for this report was picked especially for a comparison of conditions before and after the installation of a gas boiler.

With the old system heating was slow and ineffective and certain parts of the house could not be heated in cold weather. Through the installation of a boiler of adequate rating and the making of certain changes in the system, all parts of the house could be heated regardless of weather conditions. The sun room, which formerly was closed with the

advent of cold weather, has virtually become the living room, as is evidenced by the transference of the family radio, phonograph, magazine table and easy chairs to this space

The cellar, originally kept in much better condition than is usual, was cleared of all articles and transformed into a billiard room with comfortable lounging chairs; the walls painted white as was also the ceiling, which was first covered with beaver board.

Temperatures desired were automatically maintained at all times with a very minimum of attention.

Labor for ash removal and fire attention was eliminated.

These advantages to this particular consumer more than justify the increased cost with gas.

Sales Resistance Met and How Overcome

From the days of primitive barter the basic principle of selling has always been the same; namely, that the seller must convince his prospective customer of the desirability of the article offered and that the price be commensurate with the value which the buyer would receive from its purchase. The second part of this principle especially holds true in the sale of gas house heating which at the present time, at least, is classed as a luxury rather than a necessity. It is a comparatively easy matter to convince your prospective customer that heating his home with gas is a much more convenient and satisfactory method than operating his present coal heating system, but it is another matter to convince him that the additional service he would obtain with gas would warrant the expense of its installation and its operation at a considerably higher cost.

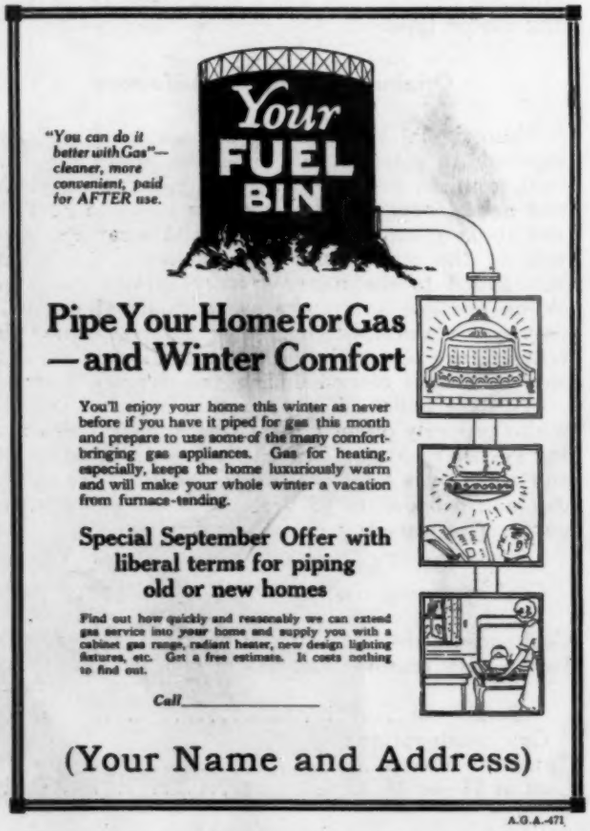
Ordinarily the prospect will bring up one or more of the following points: First, that the installation of gas virtually means the scrapping of the present heating boiler which usually is good for several years' service; second, that the cost of operation would be much higher than with coal; third, that no real advantage would be gained over the installation of an oil burning system which could be operated at a cost comparable with coal.

What to Do First

To briefly discuss these points, the general idea of the installation should first be outlined to the prospect, who, when he learns that the purchase of a new boiler is called for will inquire if it is not possible, as with oil, to install a burner in his present heating boiler and, hence, eliminate the necessity of purchasing additional boiler equipment. He should be informed that although this could be done, and at a comparatively low first cost, that the actual operating cost would be approximately twice as high as with the use of a boiler designed especially for gas burning. He should also be told that even if the purchase of a new boiler is called for, the first cost of equipment and installation will be little, if any, higher than the first cost of a satisfactory oil burner with its attendant storage tank and vaporizing system.

Perhaps the factor that the customer will be most interested in will be how the cost of operation with gas will compare with his past operating costs with solid fuel. We should attempt to bring home to the prospect the thought that a direct comparison of fuel costs is not the real basis for comparison; that although gas would undoubtedly be more expensive than the solid fuel previously employed, that the actual heating service obtained with gas would be beyond comparison; that he is purchasing not so many heating units but a heating service that means comfort. It should be pointed out to him that the acquisition of a gas heating system with its automatic fireman brings in certain factors which cannot be definitely valuated but which unquestionably do have an intrinsic value. Among these may be enumerated, cleanliness throughout the home, the transformation of the cellar from a coal storage and refuse depository space to an additional usable room; that elimination of the human element through automatic control, the guarantee of a comfortable house regardless of outside weather conditions; and the reduction of attention to the heating system to a weekly winding of the regulating clock and occa-

(Continued on page 205)


"You can do it better with Gas"—cleaner, more convenient, paid for AFTER use.
Your FUEL BIN
Pipe Your Home for Gas —and Winter Comfort
You'll enjoy your home this winter as never before if you have it piped for gas this month and prepare to use some of the many comfort-bringing gas appliances. Gas for heating, especially, keeps the home luxuriously warm and will make your whole winter a vacation from furnace-tending.
Special September Offer with liberal terms for piping old or new homes
Find out how quickly and reasonably we can extend gas service into your home and supply you with a cabinet gas range, radiant heater, new design lighting fixtures, etc. Get a free estimate. It costs nothing to find out.
Call_____
(Your Name and Address)
A.G.A.-471

An Advertisement Featuring Fall Use of Gas

GAS MERCHANDISING

Domestic – Industrial

Ideas for the Man Who Sells

William H. Matlack

WRITING ADVERTISING COPY

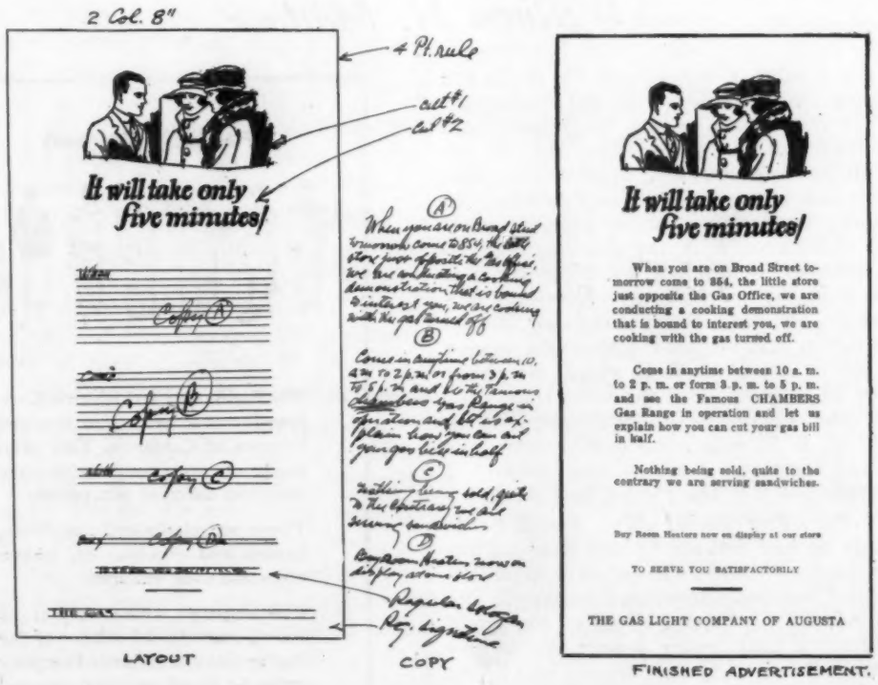
THE gas man in every city and town in the United States has been increasing his advertising space and has planned to advertise continuously and consistently. We therefore believe it will not be out of order to offer a few suggestions in these columns regarding the various phases that go into advertisement copy writing.

The most important thing in advertising is the copy. Copy that is not selling copy naturally is of no value, but as that subject has been covered time and again we will not go into it here but we will, so to speak, "put the cart before the horse" and deal with the layout with the idea of covering the subject of copy at a later date.

The layout serves two important purposes: first, it enables the advertising man to see and criticize his advertisement before it actually goes to the reader. Then it enables him to work out the most effective arrangement of both type matter and illustration for the guidance of the printer who is to set up the advertisement.

The first thing to determine is the size space to be used, then the matter of size of cut or cuts must be decided upon and their arrangement in the space to be used worked out. Finally, the copy text and arrangement of type must be determined.

Just how this is done is shown by the illustration on this page, which indicates the layout as sent to the printer and the finished advertisement as published in the daily newspaper. It will be noted that no instructions are given as to type face or size. We find that the average printer in the daily newspaper offices sets better looking advertisements when there are not too many instructions to follow. We do indicate the size of space we expect our copy to occupy as well as the width and depth by ruling off the copy as indicated. We also indicate the posi-


2 Col. 8"
4 Pt. rule
cut #1
cut #2
It will take only five minutes/
LAYOUT
COPY
It will take only five minutes/
When you are on Broad Street tomorrow come to 854, the little store just opposite the Gas Office, we are conducting a cooking demonstration that is bound to interest you, we are cooking with the gas turned off.
Come in anytime between 10 a. m. to 2 p. m. or form 3 p. m. to 5 p. m. and see the Famous CHAMBERS Gas Range in operation and let us explain how you can cut your gas bill in half.
Nothing being sold, quite to the contrary we are serving sandwiches.
Buy Room Heaters now on display at our store
TO SERVE YOU SATISFACTORILY
THE GAS LIGHT COMPANY OF AUGUSTA
FINISHED ADVERTISEMENT.

tion of the illustration and specify the size rule to use for border. In sending in copy to the newspaper, typewrite it on one side of the paper only it double space.

GIVE THEM THE JACK

WHEN you are approached to "put a piece in a program" it's all right to give them the jack—but it is not reasonable to charge it to advertising—when it really is a donation. Why burden the advertising account with the charge? There are too many crimes charged to advertising already.

P. G. & E. Publicity to Sell the People

A western advertising idea

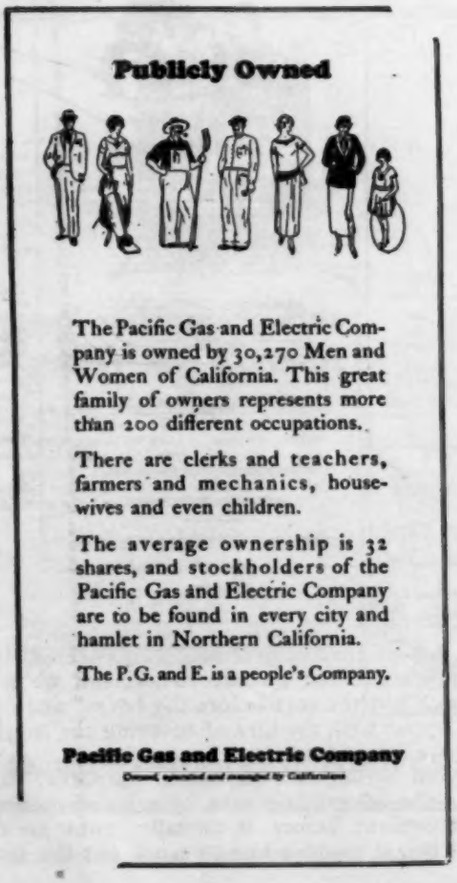
William H. Matlack

OUT on the Pacific Coast the P. G. & E. are using some unique publicity to sell the people. These advertisements, as may be judged from the one reproduced on this page, take "us" as the urge to get public interest, and it seems to this writer that this is a very excellent way in which to arouse community interest in a utility and the service it renders. Likewise, it is the obvious way to build up the customer owner list, for, after all, it is the easiest thing in the world to get followers if a leader can once be secured. When Neighbor Brown tells Neighbor Green that he had a little extra money lately and he put it into P. G. & E. stock, Neighbor Green is not to be outdone, and the next time they talk Neighbor Green says to Neighbor Brown: "Well, I think that P. G. & E. is a good outfit, they give good service and they are a pretty nice crowd. I just bought a little block of their stock last week."

Then there's the other angle. Mrs. Smith needs a new gas range or has decided to purchase an automatic water heater. Does she, who is a stockholder, go to the Friskyou Furniture Company? She does not! No indeed. "John and I decided we would not worry without a tank water heater any longer and so I just went down to the company—you know we've got a little gas company stock—and ordered an automatic."

"We, us and company, detest egotism and all that—but you know how it is, one has to be loyal to one's own company—and besides 'we' do give folks good service."

Surely, it's good dope to play up to the people and copy of the type used by the P. G. & E. Company goes over much better than that which seems to harp everlastingly on the selfish string.


Publicly Owned
The Pacific Gas and Electric Company is owned by 30,270 Men and Women of California. This great family of owners represents more than 200 different occupations.
There are clerks and teachers, farmers and mechanics, housewives and even children.
The average ownership is 32 shares, and stockholders of the Pacific Gas and Electric Company are to be found in every city and hamlet in Northern California.
The P.G. and E. is a people's Company.
Pacific Gas and Electric Company

As The Journal Views It

STATE COMMITTEE WORK

One of the outstanding features of the coming annual convention of the American Gas Association, to be held in October at Atlantic City, will be a series of meetings devoted to a discussion of the work of the state committees on public utility information. It has been stated that this will be the first time that any national utility association has arranged such an elaborate program, with the purpose of emphasizing the importance of the work done by these committees and of impressing the gas men assembled in the convention with the great value that this work has for them and their industry.

It will be remembered that the state committee movement started in the gas branch of the public utility industry. The first committee was organized in Illinois by Mr. Samuel Insull, who placed Mr. B. J. Mullaney in charge. This was in April, 1919, and in the short time that has elapsed, the movement has grown until it now embraces 28 committees which function in 36 different states of the Union. The work that has been done by these committees in the six years of their existence has been of very great importance to the welfare of the public utility industry at large, and of the gas industry in particular.

In former days, and to a certain extent even today, the public utility industry was plagued by the publication of false information regarding its activities and general character. Newspapers obtained stories of happenings in the public utility companies which were written often with a deliberate intent to injure rather than to tell the truth, and there was no hesitancy in publishing this erroneous information. Today, while there may still be a few newspapers who delight in reviling our industry and the others in the public utility field, their influence is nevertheless small, and the great majority of the papers, being supplied with accurate facts and information through the activity of the state information committees, are glad to be able to print true news regarding the utility industry.

This has been one of the principal tasks undertaken by the public utility information committees, and they have very successfully carried out their work. Furthermore, these committees have given signal service to the utility industry that maintains them in the answering of inquiries and dissemination of special information and reports to those who are interested. Important papers by utility men are reprinted, sent out and broadcasted amongst the newspapers and trade journals, and in this way publicity has been gained for much valuable and important information. This has become available to the general public.

The committees also maintain speakers' bureaus and a number of them carry out active educational work in the schools and colleges. Some of them have organized regular display advertising service which is supplied to utility companies and all of them are always ready to help any company that may apply to them.

Today, the public utility information committees are held in high repute by editors and daily papers, and the information that is sent out by these committees is accepted as being accurate and true against any other story that may have been inspired by other motives than an endeavor to represent the truth. The work is well-organized throughout the country, and serves as a distinct aid to the modern newspaper man, who is beset at all times by those who desire to use the columns of the papers, not so much as for telling facts, but for propaganda of one sort or another. The work of these committees has been of great importance in developing good public relations and promoting amongst the general public the feeling of friendliness and fairness toward the utility industry.

Selling the Company to its Employees

The importance of having an "understandingly sold" organization

P. W. Herring

Assistant to Vice-president, The Peoples Gas Light & Coke Company

THE prime object of all business is earning an adequate return on the capital invested and the energy expended in running it. A corporation is organized, its credit established, its plant built, its personnel selected, and production or supplying service is started. But, the success of the whole undertaking may depend upon the spirit prevailing among the workers.

This is especially true of the public utility business. If the management of a public utility directs all efforts towards producing earnings and ignores the development of its personnel, we all know that trouble is in sight.

In the early days society was not organized beyond that of the family unit. When the members of families began to get on more friendly terms, a social order developed until the simple forms of united effort arose, especially for the purpose of providing food, shelter, and protection from hostile neighbors. Continued development has produced the social order we have today.

A similar evolution has taken place in the business world. Separate efforts gave way to partnerships and these to corporations. Partnerships, whereby two or more men pooled their capital and labor for a given enterprise, are older than the Pyramids of Egypt. The roots of modern stock companies can be traced back into history beyond the Col legium of the Romans. Nevertheless the corporation is a comparatively new form of business organization and still has some of the defects of its newness. Of itself it lacks the human quality. As someone has said, 'the corporation has no soul to be saved and no shins to be kicked".

Duty to One's Associates

Suppose each one here were asked: "What are the main duties of the position you hold in your company?" The answer would probably be explanations, in more or less detail, of your work. Most of the answers would probably omit one all-important duty devolving upon every person who directs others—that of "selling" employees on your company and so developing them into interested, enthusiastic and contented employees.

All of us are so hurried by the demands of our immediate jobs that we easily neglect to give due attention to those who are helping us. We are apt to think of business in terms of buildings, machinery, materials and commodities or services. We do not think of our homes in that way at all. There, the members of the family come first and material things second. A similar order of thinking in business—of attention to the human side—always pays.

Service Comes First

The better class of managers, especially in the utility business, now realize that service comes first; that adequate and satisfactory service is the only dependable assurance of satisfactory earnings. When satisfactory service develops satisfied customers, that which we have to sell is bought more readily and paid for more cheerfully, and the market for it, whether it be a service or commodities or both, is steadily enlarged.

Analyze this thought and you will also see, I believe, how much satisfied employees contribute to producing satisfied customers. Our customers are our bread and butter. To neglect them is poor business and breeds bad public relations, and that in turn brings still poorer business. Now, the key to the opposite and better situation—satisfied employees, satisfied customers and better business—is, I believe, the attitude of the management.

In our own industry, not so many years ago, mystery and secretiveness existed. Doubtful practices and autocratic treatment of both public and employees were not uncommon in business generally. Public utilities had a harder time than other businesses because they were generally also at the mercy of politics. With the coming of state regulatory commissions, public service corporations found opportunity to grow under more stable conditions. Today utilities are in an enviable position when compared with most private enterprises, which have to deal with ruthless competition, cancellation of contracts, seasonal production and demand, and labor troubles. Under steadily improving regulation by state commission, utilities are more and more getting a square deal. Their customers are correspondingly benefited and improved relations between companies and customers are reflected in a more kindly disposed public opinion.

Change Due to Better Business Management

But this distinct change in public opinion has not been brought about entirely by the establishment of state commissions. The change is primarily due to better business management within the utilities, in consequence of which relations between all sides of the triangle—customers, employees and company—are now better than ever before. Substantial evidence of this is in the number of customers and em-

(Continued on page 207)

INDUSTRIAL GAS LESSONS

IF IT'S DONE WITH HEAT YOU CAN DO IT BETTER WITH GAS

Lesson No. 86

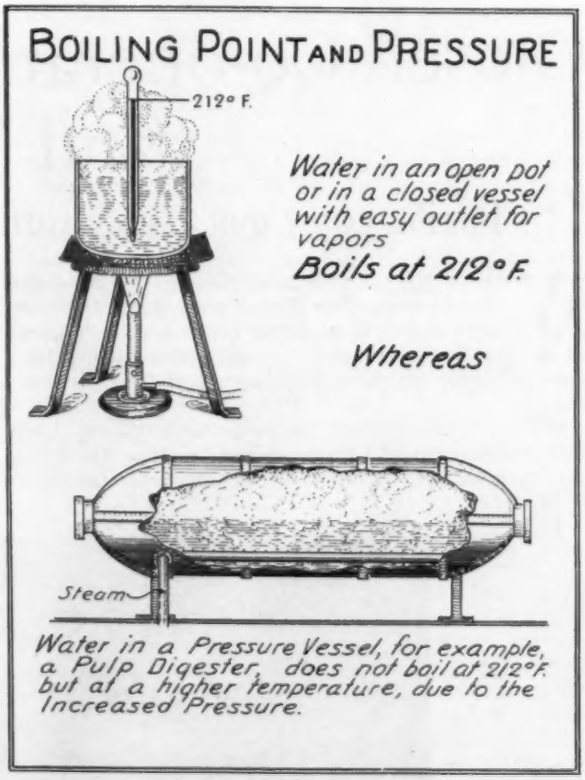
Heat and Change of State

BOILING POINT OF SOLUTIONS

IT has been demonstrated that the boiling point of a liquid is a function of the pressure. That is, the boiling point is not an absolutely constant property of the liquid but varies in accordance with the pressure to which the liquid is being subjected. This is an important fact to remember in calculating the quantities of heat that are required to evaporate a definite quantity of a liquid. Thus, for example, in figuring the heat that is required to raise the temperature of water under pressure in a digester to the required temperature, the boiling point of the water will not be 212 degrees C., but will be greater, depending on the pressure of the atmosphere within the boiler or digester. The same consideration may be applied to the determination of the amount of heat that is required to raise the temperature of solutions to the boiling point. By solutions is usually meant water solutions. The boiling point of water is 212 degrees F., but the boiling point of a salt solution is entirely different.

Effect of Dissolved Substances

In general the solution of a salt in water, or of a solid in a liquid, raises the boiling point of the liquid. Thus a 10 per cent solution of salt in water boils at a higher temperature than 212 degrees F., the boil-


BOILING POINT AND PRESSURE
212° F.
Water in an open pot or in a closed vessel with easy outlet for vapors
Boils at 212° F.
Whereas
Steam
Water in a Pressure Vessel, for example, a Pulp Digester, does not boil at 212° F. but at a higher temperature, due to the Increased Pressure.

Salt	1	2	3	4	5	6	7	10	15	25
					Degrees C.					
Barium chloride + $2H_2O$	15.0	31.1	47.3	63.5	(71.6 gives 4.5° rise in temp.)					
Calcium chloride	6.0	11.5	16.5	21.0	25.0	32.0	41.5	55.5	69.0	84.5
Potassium hydroxide	4.7	9.3	13.6	17.4	20.5	26.4	34.5	47.0	57.5	67 3
Potassium chloride	9.2	16.7	23.4	29.9	36.2	48.4	(57.4 gives rise of 8.5° C.)			
Potassium carbonate	11.5	22.5	32.0	40.0	47.5	60.5	78.5	103.5	127.5	152.5
Potassium nitrate	15.2	31.0	47.5	64.5	82.0	120.5	188.5	338.5	——	——
Magnesium chloride $6H_2O$	11.0	22.0	33.0	44.0	55.0	77.0	110.0	170.0	241.0	334.5
Sodium hydroxide	4.3	8.0	11.3	14.3	17.0	22.4	30.0	41.0	51.0	60.1
Sodium nitrate	9.0	18.5	28.0	38.0	48.0	68.0	99.5	156.0	222.0	——
Sodium chloride	6.6	12.4	17.2	21.5	25.5	33.5	(40.7 gives 8.8° C.)			
Sodium thiosulphate	14.0	27.0	39.0	49.5	59.0	77.0	104.0	152.0	214.5	331.0

Sodium carbonate $10H_2O$.	34.1	86.7	177.6	369.4	1052.9	——	——	——	——	——
Ammonium chloride	6.5	12.8	19.0	24.7	29.7	39.6	56.2	88.5	——	——
Ammonium sulphate	15.4	30.1	44.2	58.0	71.8	99.1	(115.3 gives 108.2° C.)			
Ammonia nitrate	10.0	20.0	30.0	41.0	52.0	74.8	108.0	172.0	248.0	337.0

ing point of water. The extent to which the boiling point of the liquid will be raised by the dissolved solid will depend not only on the nature of the solid but also on the percentage of the solid that is dissolved in the liquid. In fact, each individual solution has its own peculiar boiling point curve which is quite different from all others.

The following tabulation gives some idea of how various substances dissolved in water will raise its boiling point to different extents as shown by the various numbers of degrees listed across the top of the tabulation. The figures in the table show the amounts of each of the different salts that are required to product the indicated rise in the boiling point of water. This table has been compiled by the Smithsonian Institute in Washington.

These figures give some idea as to the great variation in the amounts of different salts that have to be dissolved in water to effect different rises in the temperature at which boiling takes place. The use of this table is very simple.

Closer Co-operation Between East and West

Pacific coast gas association passes important resolution

WHEREAS, the American Gas Association and the Pacific Coast Gas Association are both organizations working for the advancement of the gas industry, and it is mutually desired that close co-operation be maintained in their activities; and

Whereas, committees in both associations have been endeavoring to improve the existing affiliation but have not yet reached an agreement; therefore, be it

Resolved, that the Pacific Coast Gas Association desires its officers to continue this effort for the good of the industry and that in the meantime recommends that its members will be of service to this end by also becoming members of the American Gas Association.

(2) Whereas, it would be of inestimable value to the gas industry to have generally uniform and reasonable regulations in force in all municipalities re-

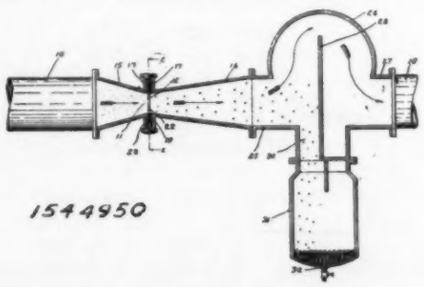
(Continued on page 209)

First Meeting of Convention of Pacific Coast Gas Association. On Rostrum (left to right)—Clifford Johnstone, Sec'y; E. L. Hall, Pres.; Hon. Geo. L. Baker, Mayor, flanked by his bodyguard of sixteen animated Gasco Briquets, inscribed "All Heat—No Ash."

PROGRESS IN GAS TECHNOLOGY
Domestic and Foreign

GAS PURIFIER

THE apparatus which is shown in the accompanying illustration and is patented in the United States, Patent No. 1,544,950, is used for the purpose of purifying gases. The apparatus consists of a venturi tube through which the gas that is to be purified is passed. This tube is shown in the illustration at 16. At a certain point within this tube, there is a porous diaphragm, shown at 12, and



the impurities of the gas that passes through this diaphragm are caused to agglomerate into particles of substantial size. These particles then drop down into the outlet end of the venturi apparatus which is shown at 31. It can be removed therefrom through opening 32. The gas, after passing through the diaphragm, is made to impinge against a baffle plate 28 and thereafter passes over the top of the same and out through pipe 10.

MAKING GAS FROM HEAVY FUEL OIL

AN investigation was made to determine whether it was necessary to use baffles in the oil gas generator for the purpose of overcoming asphalt and coke deposits and, furthermore, to determine the influence of externally heating the gen erator. The idea in mind was to do away with the baffles. It developed, in the course of the experiment, that re-design of the generator was necessary, particularly in respect to eliminating the comparatively cold area surrounding the cone of burning oil. This cold area naturally resulted in the deposition of coke and asphalt when heavy fuel oils were used in the apparatus. The final design of the burner that was adopted is seen in figure 1.

It was also obvious during the experiment that automatic control was necessary to govern the relative proportions of oil and air, if regular results were to be expected, and, furthermore, that the preheating of the oil and air must be automatically accomplished.

The sulphur content of gas made in the generator

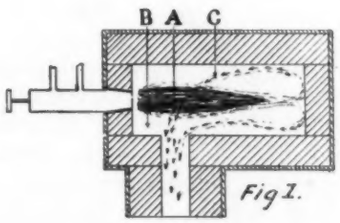


Fig 1.

having a jet device, as shown in the above illustration, was very low. It was also found that the coke did not tend to form and that heat troubles were prevented. Furthermore, it was not necessary to use baffles and external heating devices. The efficiency of the gas making operation was determined to be 88.4 per cent and this refers to the ratio of the total number of B.t.u.'s in the gas divided in the number of B.t.u.'s in the weight of the oil convert. The yield of lampblack or carbon black varies proportionately as the density of the oil. However, this yield is influenced by the shape of the generator at the time the gases remain in it. A Mexican heavy bunker oil of 0.980 yields of up to 10 per cent of carbon black have been obtained.

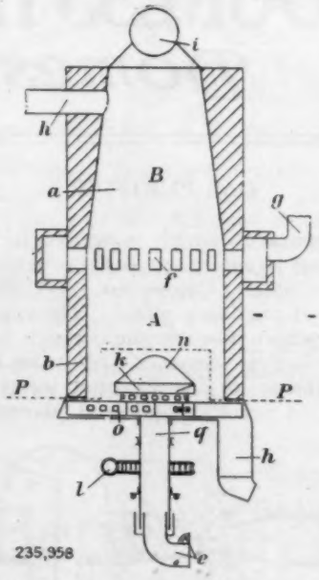
For further details the reader is referred to the article published in the Journal of the Society of Chemical Industry, pages 299T to 303T, June 19, 1925.

MIXED GAS MANUFACTURE

THE object of this process is to obtain a mixture of water gas and coal gas with a maximum yield of low-temperature tar, ammonia, and coke. The usual down-steaming operation is omitted, and coke is continuously withdrawn from the lowest part of the fuel zone at such a rate that up-steaming alone can be maintained without displacing the reactive zone upwards. In this manner the active semi-coke can be brought to the required condition without reaching the high-temperature which usually prevails. The cycle comprises three stages instead of five: (1) "hot blowing" for one to one and a half minutes, during which the semi-coke in the lowest zone is rendered incandescent, and the blow gases are discharged about the middle of the fuel column; (2) the scavenging stage in which steam is admitted till water gas escapes through the blow gas ports; (3) "cold blowing" for three to five minutes by an ascending current of steam, while the water gas passes upwards through the bituminous fuel and distills it. The coke is continuously withdrawn at the bottom of the column at such a

rate that the incandescent zone is maintained stationary near the bottom of the generator.

In the generator "B" the fuel is supplied at the top, the blow gas escapes through the outlets f, and the water gas and distillation gases through the outlet h. A mechanical coke extractor is used, mounted on a hollow shaft g which is rotated by gearing l. The coke extractor consists of a hood n having radial blades or cutting arms which cut the surrounding coke and displace it into a number of pockets p. Air and steam are introduced at e and issue through ports in the hood. This apparatus is simpler than the usual, owing to the omission of the downward teaming and also safer, in that the air blast cannot mix with the gas in the conduits outside the generator. A larger yield of ammonia is obtained, since it is not decomposed by blowing through the incandescent fuel, and a high yield of low temperature tar for the same reason—(British Patent No. 235,958.)



RAILROADS SAVE MONEY BY GAS AND ELECTRICITY

Steam railroads are reducing the cost of repairs and increasing the efficiency of their freight yards by the use of gas and electricity, the Pennsylvania Public Service Information Committee reports.

Some railroads are utilizing gas in heat-treating furnaces and portable blow torches. Material, formerly scrapped, has been salvaged in this fashion.

One large road has installed a scientific system of flood lighting with electric lamps in its freight classification yard. After several months' operation a comparison with conditions in the previous period was made and it was found that the number of cars handled at night had increased by 15.5 per cent and that the average cost of damage to cars handled at night had decreased 21 per cent.

WHAD'YE MEAN, "HOME-MADE" PIE?

What is the meaning of "home-made" pie? Every restaurant and lunch room serves it, yet everybody knows that all the homes in America working overtime could not supply the pies consumed each day by a ravenous and insatiable public.

Nevertheless, we are assured by wholesale pie bakers that reputable lunch rooms really do serve bona fide home-made pies which are as different from the leather-like store pies of twenty years ago as a waffle is from a waffle iron. Modern machinery, using the same gas as a fuel that the modern mother and housewife use, has developed to such a point that 1,200 pies can be turned out by one oven every hour without a perceptible difference in crispness or flavor.

It used to take half a day or more for mother to make a mess of pies. Now the pies are taken from the crusting machine, placed on the travelling shelves of the 30-foot gas-fired oven, and in about half an hour they reach the discharge end of the oven baked as perfectly as can be desired.

One Brooklyn pie-baking plant covers an ordinary city block and can bake 4,000 pies every hour if required, or 96,000 in 24 hours, all of which are cooked by gas. Cutting a pie into six pieces, this establishment could furnish the daily dessert for nearly 600,000 persons. In the wee small hours of the night, auto trucks, called pie-wagons, are leaving the plant for all parts of the city, each carrying 600 pies.

An English Model Laundry Exhibit

HOUSE HEATING EXPERIENCE IN NEW ENGLAND

(Continued from page 196)

sional feeding of water into the boiler. To sum up, the prospect should be made to feel that the increased cost of operation would be more than compensated for by the increased service and comfort.

In many cases we find that our prospect is also very much interested in the possibilities of installing an oil burner and the gas salesman will then have to convince his prospect that gas is the logical fuel for his use. The prospect will bring up the points that with oil as with gas, operation is automatic and the necessity of handling solid fuel and using cellar space for its storage is eliminated. His question will be, "if the operation and results obtained are to be esesntially the same with either gas or oil, what advantages has gas over oil to justify its use at a considerably higher cost?"

Convincing answers to this question may be given from several viewpoints.

Gas Versus Oil

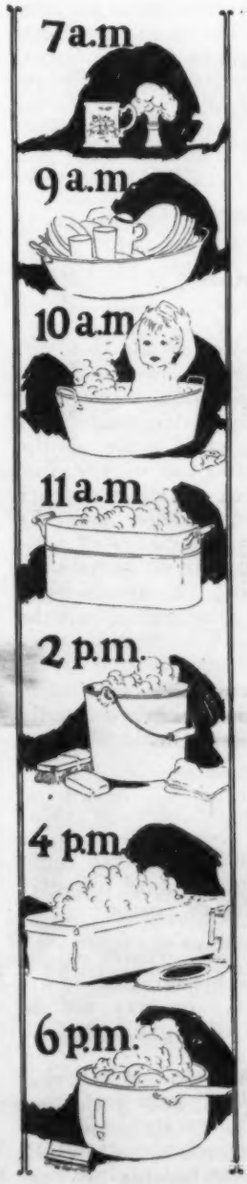
Cost of operation, while at present favoring oil, must be expected, as time goes on, to show an increasing tendency to favor gas. Gas fuel may be expected to show a fairly stable price, with the tendency toward a decreasing cost, as turnout is constantly increased without a proportional increase in overhead charges. Oil fuel, on the other hand, is subject to more or less severe fluctuations in production with these reflected in the prices. As the available supply diminishes and the demand for the higher grade oils increases, making the further cracking of the lower grades profitable, we must expect a general tendency for increased prices.

The operation of a gas boiler must be considered much more dependable than that of an oil burner. With gas equipment the failure of electricity would render the thermostatic system inoperative, but would not cause the heating plant to be inoperative. Only the failure of the gas supply, which is extremely unlikely to occur, would cause this. Most high-grade oil burners, on the other hand, require electricity for their vaporizing mechanism, and some systems also make use of a gas pilot. Hence, the failure of either the gas or electrical supply would be expected to render certain types of oil-burning systems inoperative. As the number of operating parts are usually less with gas, this also renders the gas boiler less likely to fail to function through breakdown of essential parts.

Dependability of Fuel

Again, when we consider the question of dependability of product, of the distribution of the product and of the service that may be expected after the installation, gas again shows the way. The gas companies of New England handle only three makes of gas boilers to any extent, and these are all of the same general type and scientifically developed and capable of giving proved results. The manufacturers of one make are nationally known through many years of success in marketing solid fuel boilers. Contrast the case of the oil burner. In New England alone, according to the statements of the oil burner representatives themselves, there are over 200 different makes of burners, of many different types, being marketed, and many of these are sold on a price basis rather than on merit.

The three or four most successful makes of oil burners generally are handled locally by long-estab-



HOT WATER

The whole day through

ONLY the woman in the home knows how many daily uses there are for hot water. Almost hourly it is needed. Does your present system of water heating give you all the hot water you need, all the day through, or do you have to stop and wait for "the tank to heat up"?

GAS WATER HEATERS

Storage System

As you draw off the hot water, the storage tank is refilled automatically so that there's always hot water on tap, ready for use. Nothing to turn on or off, yet no gas is wasted. Ask us about this better system.

Have installations made NOW at housecleaning time, when you need hot water more than ever.

Call.....

(Your Name and Address Here)

A.G.A.-418

Hot Water for Every Hour

lished, reliable concerns. The poorer types are often distributed by "fly-by-night" concerns. Few private concerns will enjoy the reputation for reliability that a public service corporation possesses.

Primarily the oil-burner representative is interested in the sale of equipment; the sale of fuel is outside his province, and hence he will not have the interest in maintaining service that the gas company, which is selling fuel rather than equipment, will.

One point that the manufacturer of an oil burner using a low-grade fuel oil frequently brings out is that as the cost of the higher grade oils increases and renders the operating cost prohibitive as compared to the lower grades, it will not be possible to economically adjust the high-grade fuel oil burner to burn the lower, heavier grades, and hence the continued use of oil for fuel would necessitate the purchase of new burner equipment. It is extremely unlikely that any change in gas would be made that would cause the present gas boilers to become useless.

Further Comparisons

As to the general characteristics of the two systems—from the viewpoint of efficiency we would expect gas to show a better utilization of the fuel heating units, and we would expect identical boiler efficiencies in all boilers of the same make, as the boiler is designed for the utilization of the fuel under constant conditions. With oil, on the other hand, a certain type and size of burner must be adapted to many different types and makes of boilers which were originally designed to burn solid fuels, not liquid. If the adaption to the various types of boilers is not made carefully, operation will be inefficient.

Operation will be practically noiseless and odorless with gas. With oil, odor and noise are usually noticeable, and in some cases are decidedly pronounced and unpleasant.

Operation will be clean with gas. On the other hand, while in general oil will also be clean, there are very few oil burner representatives that could not cite cases of burners not functioning properly and sooting the home from cellar to garret.

Fire hazard is increased to a much greater extent through the installation of an oil burner, and its attendant storage tank, which may or may not be buried, than by the installation of a gas boiler.

The above covers briefly the three main points that the prospect will usually bring up, and if the gas salesman can make the answers to these as convincing to his prospect as they should be to himself, in many cases the prospect should become his customer.

GAS FROM FUEL OIL

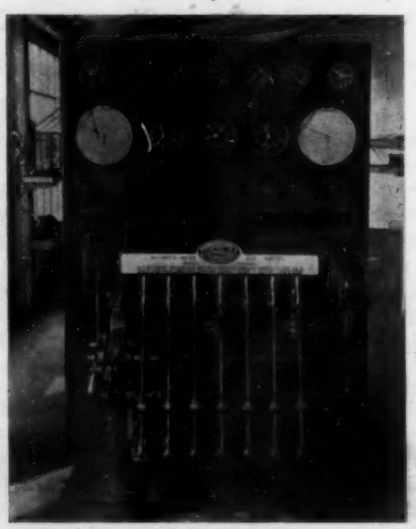
(Continued from page 193)

erators, visitors sometimes leave the plant with the misconception that air is used in making gas. This is entirely erroneous. A large volume of air is used only to furnish oxygen and draught for the terrific fires which must be maintained in the generators to raise the temperature in the short time allowed.

We can safely handle gas and fire together, but if we mix 'em up with air—slow music and flowers—the three won't mix, that's all.

Final Purifying Processes

After the gas has been forced into the relief holder by expansion in the generator, we lose this power due to expansion and must now pump the gas, first through shavings scrubbers, to remove the last vestige of tar, then through oil scrubbers to remove naphthalene, then through purifiers to remove sulphuretted hydrogen, then through more oil scrubbers to finish removing the naphthalene, and into storage holders, whence it is given into the capable hands of the gas distribution department.



Automatic Electrically Operated Gas Machine Control Board, Actuating in Proper Rotation All the Necessary Controls Which Cause the Big Machine to Make Gas

Purifiers are chambers, six of which hold 5,000 cubic feet, and three 8,000 cubic feet, of iron oxide sponge. This sponge is made of Oregon pine shavings, or chips, mixed wet with lime, copperas, and thoroughly oxidized iron, in proportions we have worked out. The gas is forced to work its way through this mass, three sets in a series. As the gas travels through the mass, it must come into contact with the iron oxide, the active agent. When the sulphuretted hydrogen strikes the iron oxide, the

sulphur immediately combines with the iron, forming an iron sulphide and freeing the hydrogen from sulphur.

When the mass of sponge has accumulated about 60 per cent of its weight in sulphur, becoming iron sulphide, it is of no further value, and must be replaced.

SELLING THE COMPANY TO ITS EMPLOYEES

(Continued from page 200)

ployees who have invested their savings in public utility securities.

The public utility industry raised money last year at the rate of a hundred million dollars a month. But the utility managers did not sell all of these securities alone and unaided. Their employees sold to the public and bought for themselves. No other industry in the world has made such a record in raising capital by direct offer of securities to customers and employees.

In looking for the reasons why all this has happened, we get back to a factor mentioned a moment ago: the attitude of the management. There is where the job of selling the company to the employees begins. Employees are never "sold" on their company until the management wants them to be; until the management provides a "saleable" 'company, and then applies a little salesmanship.

A letterhead and a corporate seal, the latter seen only at rare intervals, are about all the outsider sees or knows of a corporation. Those two articles are not of themselves fiery stimulates to loyalty and enthusiasm. If your company wants loyal and enthusiastic employees, it must show them something to be loyal and enthusiastic about.

The Facts of the Business

First among things to be thus shown, probably are the facts of the business. Cut out the mystery and secretiveness. Take the men and women of the rank and file into the confidence of the management. Encourage them to know about the company and to think on what they know. Let them in on the functions, the aims, the policies, the problems and the operations of the company. Don't just give orders; invite co-operation, first doing your part to enable it to be well informed, and therefore intelligent co-operation. Give them a chance to feel that they are a part of the company, not just working for it. The response will surprise you. Our experience in the Peoples Gas Light & Coke Company is evidence in the case.

Employee morale in our company, as well as our public relations, one depending much upon the other, are, I believe, better than the average among public utility companies. The key to this happy situation has been, unqualifiedly, the attitude of the management.

Welfare or Employee Benefits Not Sufficient

Our company has had for years most of the things which come under the head of "welfare" or "employee benefits"—the things invented in the first instance to stimulate employee-loyalty and enthusiasm for the company—as follows:

Liberal service annuities, in recognition of long and faithful service, pensions, provided without cost to the employees; ample and competent medical supervision and service; liberal sick benefits and death benefits (generally speaking, full time pay when sick or hurt, and a year's pay to dependents in case of death); loans without interest in cases of real financial distress; social and recreational opportunities beyond the average through an employees' club partially subsidized by the company, and so on. Yet employee-morale was not especially good –very little conscious thought was given to whether such thing existed—and what there was of it came out of the war period badly frazzled.

The attitude of the management was strikingly changed with the coming of new managerial policies immediately after the war. The outstanding characteristic of the new attitude was to take the employees into the full confidence of the management, in respect to all policies, and details of the business, and so give them a chance to be interested, to be informed, and to be loyal and enthusiastic with their eyes open.

This seems to work, if tangible facts as well as appearances mean anything. Response to the new attitude of the management was such that considerable additions have been made to the "employee-benefits" and the points of contact between company and employees, outside of the contacts imposed by every-day routines.

Industrial Relations Department

All things that concern employees are tied together and tied into the company fabric by an Industrial Relations Department and an Employees' Representation Plan. Any kind of question that can arise between employer and employee can be taken up under employees' representation, and the employees, through their elected representatives, have a 50-50 voice in settling such questions.

The purpose of all this, as reflecting the attitude of the management in effect since the war, is threefold: (1) To enable employees to acquire knowledge of the industry they are in and knowledge of the company they work for; (2) to foster the "family" spirit throughout the entire working organization; (3) to cultivate a clear "reason why" conviction that the industry is a worth-while industry and the company a worth-while institution.

Does It Pay?

All this costs much money. The natural question is: Does it pay? In answer to that, in the absence of tabulated and charted results, this may be said:

The things briefly sketched as reflecting the new attitude of the management have added many thousands of dollars to company expenses. Yet our cost

of doing business—the ratio of total operating expense to total volume of business—has declined and this in the face of increased wages and salaries on one side, and lower selling prices for our product on the other.

It should not be necessary to argue that well-informed, well-treated employees, and therefore intelligently loyal and enthusiastic employees, make the most efficient employees. If the employees are really and understandingly "sold" on the company, understandingly "sold", they can be depended on to "sell" the company and its product or commodities or service. Work is done better. More work is done with less effort. Customers are better served and better satisfied. Complaints, disputes over bills and the like are reduced and more product and merchandise is sold.

Well-Informed Employees Are Assets

Well-informed turn-on and cut-off men, gas pipe fitters, gas range adjusters or counter clerks, who can answer questions about the company and who do it with enthusiasm, are assets. You can hardly measure this asset-value specifically in dollars and cents, but give it a chance over a period of years and it will be reflected in the annual balance sheet.

When your company has been put into "saleable" condition, along the lines indicated, it is not yet "sold". Some definite "selling" effort needs to be applied.

The Method

Our methods begin with trying to make the new employee understand the attitude of the management. The opportunity to advance as fast as one really qualifies himself for advancement is emphasized. Interest in the company's business to the extent of wanting to know all about it is encouraged. The benefits which accrue from service in the company are explained, not as lures but as items in employee-company relations which the employee should know as he knows the hours for beginnig and quitting work. We do our best to show him that his interests and the company's interests are identical, and that the success of both is best achieved by real team work throughout the organization, from newest recruit to oldest employee and from office boy to president.

Then those responsible for personnel management try to see to it that the "selling" process is continuous, both in keeping up the "saleable" quality and in applying the salesmanship. Getting this done is more than the job of one man or department. It is especially the job of every person in the organization who has executive or supervisory functions.

The best intentions and most favorable attitude of management will go awry if misinterpreted to the rank and file by department heads and foremen. Every single element in a business enterprise contributes something to its success or failure. It thus becomes practically the job of men in executive and supervisory positions to help in "selling" the company to the rank and file so that the ultimate objective may be reached, namely: selling the company in all respects to the customers.

Selection of Right Personnel

In working toward all of the desirable ends that have been suggested, selecting the right kind of personnel is very important, but equally important is the intelligent direction and sympathetic guidance of employees by their immediate superiors. The employee who learns the job just ahead and increases his knowledge of work handled by other departments, can expect advancement much quicker than the "clock watcher". Making employees see this tends to stimulate ambition and strengthens morale.

I recall an instance recently when several employees were interviewed for a position which carried with it a substantial increase in salary. Out of the group one man was able to qualify; the others lacked a knowledge of one important phase of the business which in the mind of the superintendent seemed paramount in making his selection.

Conclusion

After all, ways and means of "selling the company to the employees" can be boiled down to the essentials of selling anything else. First comes attitude of the management, which is comparable to the product of a manufacturer. If the product is not good, has no special merit or desirable quality, you having nothing saleable to offer. If it is good and saleable, the next steps are comparable with the steps in selling gas ranges, water heaters, washing machines or any kind of merchandise or commodity.

The "goods" have to be shown and explained and demonstrated. The better your prosepctive "buyers" are made to know and understand the thing you are selling (in the case of employees, better understanding of the company and its business in all of its ramifications) the easier they will be "sold" and the more firmly they will remain "sold".

The intensive part of this selling, I repeat, is the job of all who have executive and supervisory functions in the company. Their doing so is an essential of intelligent management, and intelligent management is the potent factor in the success of an organization. It is the life blood that transmutes the thoughts and feelings of workers into action. It is the living spirit that breathes life into motionless machinery, material, and men. By its magic touch it injects a force into the organization that often transforms its employees into human dynamos. So, if we would have better public relations, better satisfied and more active employees, we must have good management and strong leadership.

CLOSER CO-OPERATION BETWEEN EAST AND WEST

(Continued from page 202)

garding the installation of gas pipes and gas appliances; and

Whereas, a committee of this association has developed a code which defines reasonable and satisfactory methods of making such installations; be it

Resolved, that this association commends this committee for its work and instructs it to give consideration to the record of this convention and to written discussion of its findings received by its chairman not later than ninety days following the close of this convention (or up to the close of business on November 21, 1925) and immediately following that date to present to the officers of the association the final results of its deliberations; and be it further

Resolved, that, having implicit confidence in its officers and directors, the association directs that the "Code of Municipal Gas Regulations" as finally approved by them be transmitted to member companies with a communication stating that it has the indorsement of the association but pointing out to them that it may be necessary to amend it to make it adaptable to local conditions before its being offered for adoption to the governing bodies of municipalities.

Certification of Gas Appliances

(3) Whereas, the Code of Municipal Gas Regulations indorsed by this association contains a clause providing for the certification of the safety of gas appliances by a constituted authority, or in lieu thereof, by this association; and

Whereas, it appears that the American Gas Association has undertaken to establish itself as an authority, but is not yet ready to act; be it

Resolved, that the Pacific Coast Gas Association will undertake this responsibility on the Pacific Coast only until such time as it is formally notified that the American Gas Association is ready to act; and be it further

Resolved, that the officers and directors of this association be empowered to establish the means by which the association can fulfill this temporary obligation to such municipalities as may adopt the aforementioned clause of the Code of Municipal Gas Regulations.

(4) Whereas, there is great need for an explicit written manual describing those considerations in the selection, installation and maintenance of gas appliances which have stood the test of satisfactory service to the user of gas fuel; and

Whereas, a committee of this association has developed such a manual; be it

Resolved, that this committee be commended for its work and that it be instructed to give consideration to the record of this convention and to written discussion of its findings received prior to the close of business on October 21, 1925, and immediately following that date to present to the officers of the association its completed manual; and be it further

Resolved, that the officers of the association are empowered to have this manual printed and to offer it for sale at a reasonable price.

BATHING PATRONS DEMAND DRY SUITS TO ENTER WATER

Gas-Fired Dryers Do the Trick

"Human nature is a funny thing," said the head of one of America's largest seaside bathing resorts recently. "People come for fifty miles or more to get a dip in the ocean. Then they raise Cain because we rent them a bathing suit that's just slightly damp."

In order to accommodate this particular quirk of the genus homo, this, as well as scores of similar resorts in the East, have been compelled to put in what is sometimes a highly elaborate drying system. Fortunately, and owing to the availability of city gas fuel, it is possible to give every patron a dry suit at the rate of three to four a minute.

During the mid-season the daily average crowd is between 3,000 and 4,000 bathers. Since only about one out of every three bathers provides his or her own suit, this means that from 2,000 to 3,000 suits and towels must be put through the laundry.

It's Waiting for You

FOR most of us September marks the homecoming from vacation land.

What a convenience it is to step up to the range, turn the valve and have gas service respond instantly to our demand! How many of us realize that the gas has been right there in the pipes waiting for us, ready to be used in large or small quantities as we desire, and to be paid for after we have used it?

There's no vacation time for gas service. It's on the job 24 hours a day, 365¼ days a year, whether we're at home to use it or not.

"If it's done with Heat, you can do it Better with GAS"

(Your Name and Address Here)

A.G.A. 477

Gas the Faithful Servant

Current Market Prices

COALS (By Courtesy of Coal Age)

A. Bituminous.

(Spot prices, F. O. B. mines, net tons)

High Volatile, Eastern	Market	Price
Pool 54-64 (Gas Standard)	New York	$1.45 to $1.70
Pittsburgh screened gas	Pittsburgh	2.50
Pittsburgh gas, mine run	Pittsburgh	2.10 to 2.25
Kanawha lump	Columbus	2.40 to 2.75
Kanawha mine run	Columbus	1.55 to 1.80
West Virginia lump	Cincinnati	2.25 to 2.50
W. Virginia gas, mine run	Cincinnati	1.50 to 1.75
Midwest		
Indiana 4th vein lump	Chicago	2.75 to 3.00
Indiana 4th vein mine run	Chicago	2.25 to 2.50
South and Southwest		
Big Seam lump	Birmingham	1.90 to 2.50
Big Seam mine run	Birmingham	1.50 to 2.00
Southeast Kentucky block	Louisville	2.50 to 3.25
Southeast Kentucky mine run	Louisville	1.50 to 1.75

B. Anthracite

(Spot prices, F. O. B. mines, gross tons)

Market	Freight Rates	Independent	Company
Egg New York	$2.34	$10.00 to $11.00	$8.20 to $8.90
Egg Philadelphia	2.39	8.90 to 9.70	8.25 to 8.90
Egg Chicago (net tons)	5.06	8.17 to 8.60	8.65 to 8.90

COKE (By Courtesy of Iron Trade Review)

Connellsville, furnace	$3.25 to $3.75
Wise County, furnace	3.75 to 4.25
Alabama, furnace	4 00 to 4.50
Foundry, Newark, N. J., del.	10.41
Foundry, Chicago, ovens	9.75
Foundry, Boston, delivered	12.00
Foundry, St. Louis	11.00
Foundry, Granite City, Ill.	9.50
Foundry, Alabama	4.50 to 5.00

PETROLEUM

(By Courtesy of Oil, Paint and Drug Reporter)

(Prices at wells, per bbl.)

Pennsylvania—Ohio—West Virginia	
Cabell, West Virginia	$2.05
Corning, Ohio	1.80
Lima	2.48
Pennsylvania	3.40
Wooster, Ohio	2.50
Indiana—Illinois	
Illinois	1.87
Indiana	1.88
Oklahoma—Kansas	
Mid-continent (low gravity)	1.00 to 1.10
Gulf Coast	
Gulf Coast, Grade A	$1.50
Gulf Coast, Grade B	1.25

GAS OILS

Gas Oil, Bayonne, bulk, gal.	6¾c
Gas Oil (32-36), Oklahoma, gal.	3 to 3½c
Gas Oil (32-36), Gulf Coast, gal.	5 to 5¾c

PIPE AND FITTINGS—CAReview)

(By Courtesy Iron Trade ST IRON GAS PIPE

Four-inch, Chicago	$53.20 to $54.20
Six-inch and over, Chicago	49.20 to 50.20
Four-inch, Birmingham	45.00 to 46.20
Six-inch and over, Birmingham	41.00 to 42.00
Four-inch, New York	56.50 to 57.60
Six-inch and over, New York	51.50 to 52.60
Standard fittings, Birmingham, base	115.00

6 to 24-inch, base; over 24-inch, plus $20; 4-inch, plus $20; 3-inch, plus $20.

BY-PRODUCTS

(By Courtesy of Oil, Paint and Drug Reporter)

Ammonia aqua, 16 deg. drums, lb.	5 to 5¼c
Ammonia aqua, 20 deg. drums, lb.	5¾ to 6c
Ammonia aqua, 26 deg. drums, lb.	6 to 6¼c
Ammonia aqua, anhydrous cylinder, lb.	30 to 36 c
Ammonium sulphate, bulk, delivered Northern markets, per 100 lbs.	$2.80 to $2.85
Ammonia sulphate, bulk, delivered Southern markets	2.80 to 2.85
Potash Prussiate, yellow casks	18¼ to 19c
Potash Prussiate, red casks, lb	36 to 38c
Soda Prussiate, yellow casks	10½ to 10¾c
Soda Sulphocyanide, barrels, lb.	45 to 55 c

COAL TAR BASIC PRODUCTS

(By Courtesy of Oil, Paint and Drug Peporter)

Benzol C. P. tanks, works, gal.	25c
Benzol, drums, gal.	30c
Benzol, 90% tanks, works, gal.	24c
Benzol, 90% drums, gal.	29c
Naphthalene, flake, barrels, lb.	5½ to 6c
Naphthalene, dyestuff bags, lb.	5 to 5½c
Solvent Naphtha, water white, works, gal.	25c
Solvent Naphtha, drums, works, gal.	30c
Toluene, C. P. tanks, works, gal.	26c
Toluene, C. P. drums, works, gal.	31c

COAL

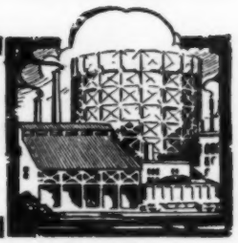
The long threatened anthracite strike became an actuality September 1, the only uncertainty now being as to its probable duration. As a natural corollary the bituminous coal trade continues to improve, prices showing increasing firmness. Demand is especially strong, of course, for domestic varieties, but railroads, utilities and industrial consumers have not been slow to realize the importance of building up reserves and are taking larger shipments on existing contracts lest their sources of supply be menaced by nervous eastern anthracite consumers. While the pick-up is in boldest relief in hard-coal consuming territory, the betterment is not confined to any particular locality, being practically nation-wide. At Cincinnati the August supply of smokeless was sold up early last week and orders were accepted only for September delivery.

Production of bituminous coal in the week ended August 22 is estimated by the Geological Survey at 10,527,000 net tons, as compared with 10,260,000 tons in the preceding week, as shown by revised figures. Anthracite output in the week ended August 22 totaled 2,209,000 net tons, the largest weekly output since Dec. 16, 1922, as against 1,904,000 in the previous week.

GAS OIL

Gas oil was moving in routine fashion at 6¾c per gallon, bulk, f.o.b. Bayonne, for 28 degrees gravity or better. Gas oil demand had also slowed down, the market being rather sluggish.

NEWS OF THE GAS INDUSTRY



Sounds Warning Against Speculation

Baltimore, Md. — Herbert A. Wagner, president of the Consolidated Gas, Electric Light & Power Company of Baltimore, has made the following statement:

"The sensational rise in the market prices of many electric and gas utility stocks suggests a warning which should cause conservative investors and particularly those who are less experienced to give more consideration to the fundamental characteristics of utility issues and of the conditons under which such utilities are forced to operate.

"While it is true that utility earnings have shown greater stability than those of perhaps any other industry, a strong factor in creating and maintaining this stability has been the State Commission regulation of the earnings and security issues of these utilities. This stabilizing factor or any other stabilizing influence must act to prevent inflation as well as recession in real market values, else it would not be stabilization.

"The regulation of public utility earnings has reached a basis where such utilities cannot expect to earn more than 8 per cent return on the values of their properties, and the regulation of security issues is tending rapidly to place these issues on a close parity with the actual property values. Earnings materially in excess of those allowed must inevitably be, and have been, followed by rate reductions.

Public Utility Stocks Sound

"The stocks of sound public utilities are good investment stocks, but from their very nature as to stability and limitations as to dividends they should sell as investment stocks and not as speculative stocks. Good and well-seasoned utility stocks may reasonably sell on a 6 per cent basis. A stock paying 8 per cent dividends would in such case sell at approximately $133 per share.

"In considering no par utility stocks the same fundamental conditions exist and the same controlling factors and limitations apply to both. Mr. Samuel Insull, president of the Commonwealth Edison Company of Chicago, recently sounded a warning as to the present speculative tendencies in the market activity in public utility shares and I heartily concur in what he has said.

"Those responsible for the operation and progress of public utilities are faced with the necessity of almost continuously seeking additional capital for extensions through the issue of additional securities. In such financing they greatly prefer to interest the people in their own communities. This home interest brings with it the responsibility of protecting in so far as possible such investments of the people against unwarranted inflation and speculation."

Women in the Gas Field

Their Work to Be Shown in Exposition of Women's Arts and Industries

What women are doing as officers and workers in gas and electric companies as well as the general interest being taken by women everywhere in public utilities will be shown in an exhibit of the women's section of the Empire State Gas and Electric Association at the Exposition of Women's Arts and Industries at the Hotel Commodore, September 21 to 26.

Miss Mary E. Dillon, vice-president and general manager of the Brooklyn Borough Gas Company, who is chairman of the women's section of the State Association; Miss Sara Harris, executive secretary of the Utica Gas & Electric Company; Miss Lippincott and Miss Anne Lincoln, librarian of the Brooklyn Edison Company, who are officers of the women's section, will be in charge of the exhibit.

Gas Particularly Good Field for Women

The gas and electricity field is a particularly good one for women, in the opinion of Miss Dillon, who runs a gas company that is among the 25 largest of the 900-odd gas companies in the United States.

"Women are the most interested customers of such public utilities as gas and electricity," she said. "These companies realize that they must have the good-will of their women customers and they feel that through workers with the woman's point of view is one way they can come nearer to meeting the needs of women users of gas and electricity.

"The training for a woman who wishes to enter the public utility field should consist of a good business background and the woman should have as well a social feeling. Public utilities touch the human side at every turn. The type of college woman who is interested in neighborhood work and who at the same time has a good business head should be able to make her way in the gas and electric business.

"Members of the women's section of the Empire State Gas and Electric Association are desirous of acquainting women everywhere with a greater knowledge of the utilities that they are constantly using. There is nothing in the gas

and electric business that should be beyond the comprehension of women users of gas and electricity."

The Work in Brooklyn and Coney Island

Miss Dillon has between 300 and 400 employees and she has some 42,000 customers. These customers consist of permanent residents in the 31st Ward of Brooklyn, which includes Coney Island. In the architecture of the new building of the Brooklyn Borough Gas Company in the heart of the summer resort, Miss Dillon has embodied her idea of what a gas company's building should be. There is nothing of the cold bank atmosphere, the Italian Renaissance and the ornate does not enter in. It is a building with such a home atmosphere that men entering voluntarily remove their hats. The gas company is a home industry and as such it should have a homelike building, according to Miss Dillon. A person sitting beside her desk may look through casement windows opening on a balcony made inviting with boxes of foliage plants and beyond to some tall trees over which a church spire rises. It is hard to believe that this is Coney Island. Miss Dillon will tell you it is a bit of the permanent Coney Island for which those who live there all year round are working. Her days and evenings are full with making more and better gas and a greater Coney Island.

She began her career on Coney Island. It was because she won a prize in an essay contest on Henry Hudson, that the manager of the Brooklyn Borough Gas Company offered her the place in the office vacated by her sister. At $10 a week she became the second and at that time the only woman employee of the company. Starting in the humblest job the company had, she has worked up by her own efforts in 21 years to a place just short of the top.

In private life, Miss Dillon is Mrs. Henry Farber, wife of a wholesale coal dealer. When she was married in 1923 she saw no need for creating confusion through changing the name by which customers and business friends had known her for years.

Miss Dillon is in a position to talk with authority about the gas business as a field for women. She keenly believes in the capabilities of women and of their ability to enter many lines of work hitherto almost wholly shut to them.

"The women's exposition is a concrete expression of what women are doing and what they are gaining in the business world and the scientific world," she said. "Every woman in Greater New York should visit this exposition."

Standard Gas & Electric Co. Has Large Net Earnings

New York, N. Y.—The Standard Gas & Electric Company reported the largest net revenue in the history of the company for the twelve months ended June 30, amounting to $6,508,000, an increase of 15 per cent over the corresponding period a year ago. Owing to increased earnings and retirement of funded debt, the balance after interest charges increased 36 per cent.

The balance of net earnings available for dividends on the common stock was equivalent to $4.26 a share on the 551,073 shares outstanding. Since June 30, Standard Gas & Electric has called for redemption on September 1 at $105 and accrued interest its outstanding convertible 6½ per cent gold debentures, due in 1954, amounting to approximately $2,400,000 face value.

New York State Utilities Investing Huge Sums to Provide More Service

The companies furnishing gas and electric service in New York State had on January 1 of this year a total capitalization of $1,228,000,000, according to their official reports just filed with the Public Service Commission. This is an investment amounting to $116.50 for each man, woman and child in the population of the State, says the New York State Committee on Public Utility Information.

At the beginning of last year the companies had outstanding stocks and bonds totalling $1,105,000,000. During the year they sold securities amounting to $123,000,000, or more than $300,000 each day—a record in the State for the obtaining of new capital.

Companies operating in New York City had stocks outstanding on January 1, 1925, amounting to $514,925,000 and bonds amounting to $216,840,000. Up-state companies had outstanding stocks totalling $243,075,000 and bonds aggregating $253,160,000.

"The enormous demand for gas and electric service," declares the Committee on Public Utility Information, "is reflected in the totals of new capital required by the companies of the State for the extension of their service facilities. At the beginning of 1923 the outstanding capital of the companies was just under a billion dollars. In two years it has increased approximately $230,000,000, which is represented by an increased output of about two and a half million kilowatt hours of electrical energy and fifteen billion cubic feet of gas.

"Last year the people of New York State consumed, in round numbers, 92 billion cubic feet of manufactured gas and ten billion kilowatt-hours of electricity. Records kept since 1910 show not only an increased use of gas and electricity in the State, but also an increasing consumption per capita of population served, which last year amounted to 10,000 cubic feet of gas and 940 kilowatt-hours of electricity.

"It is only by planning ahead for years that the companies are able to meet such demands. They are building new plants which will find their full capacity engaged five years from now; and meantime others will be planned and construction begun, so that the companies may be constantly one jump ahead of the service requirements. The public utilities believe it is the strongest possible tribute to the integrity of their management and the value of their service that such demands do exist and that the capital can be obtained from the public which enables the companies to fill the demands and be constantly ready for additional service to homes and industry."

Roy G. Munroe Celebrates 25th Year With Gas Company

Roy G. Munroe, assistant commercial manager of the Public Service Company of Colorado, was seen to hand out candy to the ladies and cigars to the men, Saturday, August 22. Some figured that Roy was getting ready to announce his candidacy for mayor, but he has an office that has kept him on the run, and was so glad of it that he just had to do something to show how glad he was to celebrate his 25th year as a member of the big crowd who have helped to make the Public Service Company what it is. Back in 1900, Munroe was just a "boy" and was employed to read meters. Four years later he was promoted as an assistant representative, under Clare N. Stannard. Then came the position of service supervisor; next industrial fuel engineer and in 1922 when Mr. Stannard took up the reins as vice-president and general manager he elevated Munroe to the position of commercial manager.

Mr. Munroe is characterized as an official who tries always to see that the transaction between the company and the customer is a fifty-fifty proposition, that is, fair to both parties.

He has the record of selling the first storage heater and the first gas house heating plant in Denver.

Gas Company Official Addresses Advertising Club

Frank R. Jamison, publicity director of the Public Service Company of Colorado, addressed the Advertising Club at its luncheon given at the Alpine Rose Cafe, Denver.

Speaking on "The People Be—Told," he stated that the biggest and greatest problem of any utility was to secure employees who "think" and who take an interest in the welfare of their company, which after after all means taking an interest in themselves. Taking up the various utilities, he recited how they had made life a better thing, how labor has been lessened and how the world itself is better due to the progress made by the different public utilities. All were praised for the work they are doing, but to continue to advance, their employees must advance in step. He declared that advertising should be done for effect, not for method.

Manager of World Advertising Clubs to Retire Sept. 15

New York.—C. K. Woodbridge, president of the Associated Advertising Clubs of the World, announced that Carl Hunt, general manager of the association, who is widely known among newspaper men and advertisers, had resigned, to take effect September 15, to go to Orlando, Fla., as executive vice-president of the Chamber of Commerce in that city, and that Earle Pearson, who has been educational director of the Advertising Clubs, will take his place.

Carl Hunt has been with the association for eleven years, occupying various positions before his appointment as manager.

Gas Company Requests Right to Issue Bonds

Columbus, O.—The Lake Shore Gas Co. of Cleveland has filed application with the Public Utilities Commission, seeking the right to issue bonds amounting to $950,000 in taking over the properties of the Ashtabula Gas Co., a purchase which was approved some time ago, in order that they might be able to retire bonds now outstanding and also to provide a working capital as well as to make necessary extensions.

The company is seeking to issue $850,000 par value 5½ per cent 20-year first mortgage bonds, and the remaining $75,000 in 7 per cent preferred stock. They also specify that $200,000 of the bonds will be delivered to the Ashtabula Gas Co., in consideration of the purchase price, as well as meeting obligations of their own. In event the commission approves the request, the application specifies, $650,000 of the bonds will be sold for not less than $93 each, while the preferred stock will be sold for not less than $90 each.

File Petition for Gas Contract Vote

A petiton initiating an ordinance providing for a ten-year contract with the Hamilton Furnace Company to furnish artificial gas to Hamilton, Ontario, has been filed with City Auditor R. B. Garrett.

The petition contained 5,060 names. Between 1,600 and 1,700 names are needed to place the ordinance before the people at the November election.

Halsey, Stuart Buys 2,000,000 Gas Issue

Minneapolis, Minn.—Kansas-Oklahoma Gas Company, a subsidiary of Cities Service Company, has sold $2,000,000 three-year 6 per cent first mortgage pipe line gold bonds due Aug. 1, 1928, to Halsey, Stuart & Co. Proceeds of the issue, it is understood, are to be used for the construction of 130 miles of pipe line connecting with the main trunk lines of the Empire Natural Gas Company and Kansas Natural Gas Company, thus forming an important link in the extensive system which transports natural gas from the Oklahoma fields to Kansas City, Wichita, Hutchison, and numerous other communities in Kansas, Oklahoma, and Missouri. Public offering of the bonds is expected shortly.

TO LAY GAS PIPE ON BED OF RIVER

Four-Inch Line Soon to Connect Beacon and Newburgh

George H. Smith, Central Hudson Gas & Electric Company engineer, has announced that the laying of the gas pipe under the Hudson between Beacon and Newburgh will soon be under way. The pipe line has been laid on the Newburgh side of the river and will soon be started in Beacon. The laying of the marine pipe will follow at once.

This pipe line will be one of the longest in the country, measuring almost two miles from the Newburgh plant to the Beacon plant. The pipe is four inches in diameter and will be anchored to the river bottom, after it is sunk into place from a barge.

The new main will connect the two cities and make possible an exchange of service in case of emergency. The gas plant at Beacon is inadequate to the demands that are being made upon it and rather than extend this plant the company planned the gas line between the two cities.

Contracts Awarded

Materials for the waste heat boiler connections and the new water gas apparatus for the City of Richmond, Va., have all been shipped and the erecting engineer is now proceeding with the erection of this apparatus.

This contract is being executed by the Western Gas Construction Company, Fort Wayne, Indiana.

The Consolidated Gas Company of Glasgow, Ky., has awarded contract to the Western Gas Construction Company for purifiers for their gas plant.

The Kewanee Public Service Company of Kewanee, Ill., has awarded the contract to the Western Gas Construction Company for water gas generating apparatus. This new water gas set is to be equipped with reversed air blast process.

Public Service Company Creates New Department
J. B. Dillon

Vice-president and General Manager Stannard of the Public Service Company of Colorado announces the new office of director of publicity, and the appointment of Frank R. Jamison as director of publicity. He will have jurisdiction over all publicity for the company in Colorado and contiguous territory.

Mr. Jamison was the former owner of the Canadian "Record," Canadian, Texas, and he was the organizer of the Panhandle Press Association, grown to one of the largest in the country, but more recently counsel for the Public Service Company.

Commenting upon Mr. Jamison's selection, Mr. Stannard said that the new director was thoroughly conversant with the policy of the company and that he had a way of conveying the news to the public in a manner which would be pleasing to all.

One Way of Centering the Nation's Attention on Gas

The illustration shows a general view of the permanent educational exhibit of gas appliances recently opened up on the Atlantic City Boardwalk by the Standard Gas Equipment Corporation. It is located at 1209 Boardwalk on the ground floor of the Chalfonte Hotel. The display includes a big variety of Oriole, Vulcan, Smoothtop and Triplex gas ranges, as well as a typical set-up of Vulcan Economy Hot-top Range Units and hotel appliances. Water heaters and miscellaneous small gas appliances are also shown. In the window a live demonstration on a Smoothtop range attracts the crowds. This demonstration shows how four vessels are kept steaming over one burner.

An educational feature of this exhibit is a series of monthly lectures by experts from the Home Economics Department of the Standard Gas Equipment Corporation. These lectures are given in a model kitchen and are based not only on cooking, but on household and kitchen efficiency. Women visitors are told how to use gas properly, how to do more things with it, why it is the best fuel to use, etc. This has great educational influence as visitors to Atlantic City are a typical cross-section of the country's population. Every state and every city are represented during the year.

The Standard Gas Equipment Permanent Exhibit at Atlantic City

Gas Companies Increase Capital Stock

Albany, N. Y.—Certificates authorizing increases in capital stock were filed in the office of the Secretary of State, through Gould & Wilkie, attorneys, 2 Wall Street, New York City, by three New York State utility companies. Kingston Gas & Electric Company filed a certificate increasing its capital from $1,000,000 to $1,500,000. Ulster Electric Light, Heat & Power Company increased its capital from $150,000 to $250,000, while Upper Hudson Electric & Railroad Company made an increase from $1,000,000 to $1,250,000.

Robert A. Turner Joins Railroad

Robert A. Turner of the publicity staff of the Public Service Company of Colorado, has resigned to accept the office of general advertising agent for the Seaboard Air Line Railroad Company, with headquarters at Norfolk, Va.

Previous to joining the Public Service Company, Mr. Turner had been for many years advertising expert for the Colorado & Southern Railroad, the Florida East Coast Railway and the Florida East Coast Hotel Company (Flagler System).

His friends say that with the new lines the Seaboard is building, Turner will be in his glory, because "Advertising" is his middle name.